LISTING OF CLAIMS

1. (Currently amended) A golf ball comprising:

a core comprising a polybutadiene having Mooney viscosity of about 40 to about 65 and a salt of a halogenated thiophenol, and having a compression of about 30 to about 60;

a first cover layer comprising a highly neutralized ethylene copolymer having a Shore D hardness on the ball of less than about 65; and

a second cover layer comprising a thermoset or thermoplastic polyurethane having a Shore D hardness of about 40 to about 55;

wherein the golf ball has a coefficient of restitution in the range of about 0.795 to about 0.815.

2. (Cancelled)

3. (Original) golf ball of claim 1, wherein the core compression is about 30 to about 40.

4. (Original) golf ball of claim 1, wherein the Mooney viscosity of the polybutadiene is about 40 to about 60.

5. (Original) golf ball of claim 1, wherein the core comprises metal salts of diacrylates, dimethacrylates, or monomethacrylates.

6. (Original) golf ball of claim 1, wherein the first cover layer has a Shore D hardness of about 60 to about 63.

7. (Original) golf ball of claim 1, wherein the first cover layer further comprises a material selected from a group consisting of high acid copolymer ionomers, very low modulus acid copolymer ionomers, low modulus acid copolymers, thermoplastic or thermoset polyurethanes, thermoplastic or thermoset polyetheresters or polyetheramides, thermoplastic or thermoset polyester, dynamically vulcanized elastomers, functionalized styrenebutadiene elastomers, metallocenes, and highly resilient thermoplastic elastomeric compositions.

8. (Original) golf ball of claim 1, wherein the core has an outer diameter of about 1.53 inches to about 1.58 inches.

9. (Original) golf ball of claim 8, wherein the second cover layer has a Shore D hardness of about 45 to about 48.

10. (Original) golf ball of claim 1, wherein the first cover layer has a flexural modulus of less than about 50,000 psi.

11. (Original) golf ball of claim 11, wherein the first cover layer has a flexural modulus of about 25,000 psi to about 35,000 psi.

12. (Original) golf ball of claim 1, wherein the first or second cover layers have a thickness of about 0.02 inches to about 0.05 inches.

13. (Original) golf ball of claim 1, wherein the first cover layer has a flexural modulus of about 2,000 psi to about 8,000 psi.

14. (Original) golf ball of claim 1, wherein the salt of a halogenated thiophenol comprises zinc pentachlorothiophenol.

15. (Currently amended) A golf ball comprising:

a core comprising a polybutadiene having Mooney viscosity of about 40 to about 65 and a salt of a halogenated thiophenol, and having a compression of about 30 to about 60;

a first cover layer comprising an acid copolymer ionomer having a flexural modulus of about 2,000 psi to about 8,000 psi and a Shore D hardness <u>on the ball</u> of less than about 65; and

a second cover layer comprising a thermoset or thermoplastic polyurethane having a Shore D hardness of about 40 to about 55;

<u>wherein the golf ball has a coefficient of restitution in the range of about 0.795 to about 0.815</u>.

16. (Original) golf ball of claim 15, wherein the first cover layer has a thickness of about 0.035 inches to about 0.05 inches and the second cover layer has a thickness of about 0.02 inches to about 0.35 inches.

17. (Original) golf ball of claim 15, wherein the salt of a halogenated thiophenol comprises zinc pentachlorothiophenol.

18. (Original) A golf ball comprising:

a core comprising a polybutadiene having Mooney viscosity in the range of about 40 to about 60 and a salt of a halogenated thiophenol, the core having a compression of about 50 to about 55;

a first cover layer surrounding the core, the first cover layer formed of an ionomer having a Shore D hardness on the ball of less than about 65; and

a second cover layer which surrounds the first cover layer and which is formed of a castable reactive material having a Shore D hardness on the ball in the range of about 40 to about 55;

<u>wherein the golf ball has a coefficient of restitution in the range of about 0.795 to about 0.815</u>.

19. (Original) golf ball of claim 18, wherein the castable reactive material comprises a thermoset or thermoplastic polyurethane.

20. (Original) golf ball of claim 18, wherein the golf ball has a first spin rate of less than about 3815 rpm when struck with a driver at 140 ft/s, and a second spin rate of less than about 3064 rpm when struck with a driver at 160 ft/s.

21. (Original) golf ball of claim 18, wherein the salt of a halogenated thiophenol comprises zinc pentachlorothiophenol.